

Date: Wednesday, 1/11/2006 4:10:22 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : FLOAT STEP ASSEMBLY LH (206/407)
Job Number : 23320A	
Estimate Number : 11664	
P.O. Number : N/A	Part Number : D2842041
This Issue : 1/11/2006 S.O. No. : N/A	Drawing Number : D2841 REV B
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : LARGE FAB ASSY	Drawing Revision : B
Previous Run : 25434A	Material : N/A
Written By : <u>SEE COMMENT BELOW</u>	Due Date : 1/30/2006 Qty: 2 Um: Each
Checked & Approved By : <u>SEE ABOVE USE & DATE.</u>	
Comment : Est Rev:D As Per Ecn 766 06-01-06 JLM	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D2622120C	Extrusion
-----	-----------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Qty	Part #	Description	Batch:
1	D2622-120C	Extrusion	<u>324092</u>

Check Material for any Dents or Defects

h.e. 06-02-6 = 2

2.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
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**Comment:** LARGE FABRICATION RESOURCE 1

1-Cut D2842-1 using D2622 extrusion as per Dwg D2842

2-Drill D2842-1 using Jig DT8271 as per Dwg D2842

3-Deburr and bevel ends for welding

h.e. 06-02-6 = 2

h.e. 06-02-7 = 2

h.e. 06-02-7 = 2

3.0	D2734	206 Step Endplate
-----	-------	-------------------

**Comment:** Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

206 Step Endplate

Pick:

Qty	Part Number	Description	Batch
2	D2734	End Cap	<u>320757</u>

h.e. 06-02-8 = 2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Job Number: 23320A

Part Number: D2842041

Job Number:



Seq. #:

Machine Or Operation:

Description :

4.0

D2776

Step Lug



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

Step Lug

Pick:

Qty Part Number Description Batch

2 D2776 Lug

Qty	Part #	Descr.	batch
2	D3459-3	Lug	325430
2	D3459-1	Lug	325429

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld one end cap and (2) lugs using Jig DT followed by DT as per Dwg D2842
A/R AL Rod Batch: M18839

2-Grind end cap weld flush

FF. 06.02.8 = 2

FF. 06.02.08 2

6.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

A.M. 06-02-28

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

9.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Remove alodine prior to welding.

Weld end cap as per Dwg D2842.

A/R AL Rod Batch: 324402 = 1pc B20757 = 1pc

→ M18838

FF. 06.03.2 2

PTD on next page.

FF. 06.02.8 = 2

06.02.27
06/02/27

06.03.01 2

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Job Number: 23320A

Part Number: D2842041

Job Number:



Seq. #:

Machine Or Operation:

Description :

2-Grind end cap weld flush.

FC 06.03.02 2

10.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

PD 06-03-02 2

11.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Touch up Alodine end cap and Powder Coat Gloss White (Ref: 4.3.5.1) as per QSI 005 4.3

A. m 06-03-07

12.0

NAS1329C3KB130

insert



Comment: Qty.: 3.0000 Each(s)/Unit Total : 6.0000 Each(s)

Insert

Pick:

Qty Part Number

Description Batch

3

NAS1329C3KB130Insert

m100034

FC

13.0

MS27039C107

screw



Comment: Qty.: 3.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

3

MS27039C1-07

Screw

m19522

FC

14.0

NAS1515H3L

WASHER



Comment: Qty.: 3.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description Batch

3

NAS1515H3L

WASHER

m19185

FC

15.0

AN960C10L

washer



Comment: Qty.: 3.0000 Each(s)/Unit Total : 6.0000 Each(s)

Pick:

Qty Part Number

Description

Batch

3

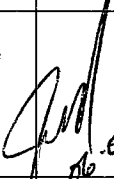




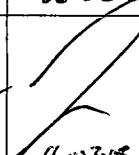
AN960C10L

WASHER

m18822

FC 06 03 10

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
06.02.27	4	- correct style of logs and Qty as per Dwg. - change has been made.		06.02.27		 06.02.27	 06.02.27	
06.03.08	2	- CHANGE DRILL SIZE FOR HOLES TO 'E' INSTEAD OF Q	 06.03.08			 06.03.08	 06.03.08	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: *[Signature]* Date: 06/03/13
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
06.02.22	8	Ends of steps bent inwards due to welding the logs to list, and the heat pulled the ends of the step in.	<i>[Signature]</i> 06.02.22	Steps are acceptable. weld 1 log at a time, and let parts cool between welds.	<i>[Signature]</i> 06.02.27	<i>[Signature]</i> 06.02.22	<i>[Signature]</i> 06.02.22	<i>[Signature]</i> 06.02.22
06.02.22	2	Hole drilled on both sides of steps. Hole only to be on one side.	<i>[Signature]</i> 06.02.22	Fill holes with the weld and grind flush as per qs 1004. See attached e-mail.	<i>[Signature]</i> 06.02.27	<i>[Signature]</i> 06.02.25	<i>[Signature]</i> 06.02.22	<i>[Signature]</i> 06.02.22

NOTE: Date & initial all entries

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Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: LARGE FABRICATION RESOURCE 1

1-Install inserts as per Dwg D2842

2-Wing Walk as per Dwg D2842 and QSI 005 4.1

Batch: M100037

QSI 06-03-08

17.0

QC3/5

INSPECT WORK/WING WALK



Comment: INSPECT WORK/WING WALK

ml 06 03 08

18.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: ✓

CY 06/03/09

19.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/03/13

Job Completion



u 06-03-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

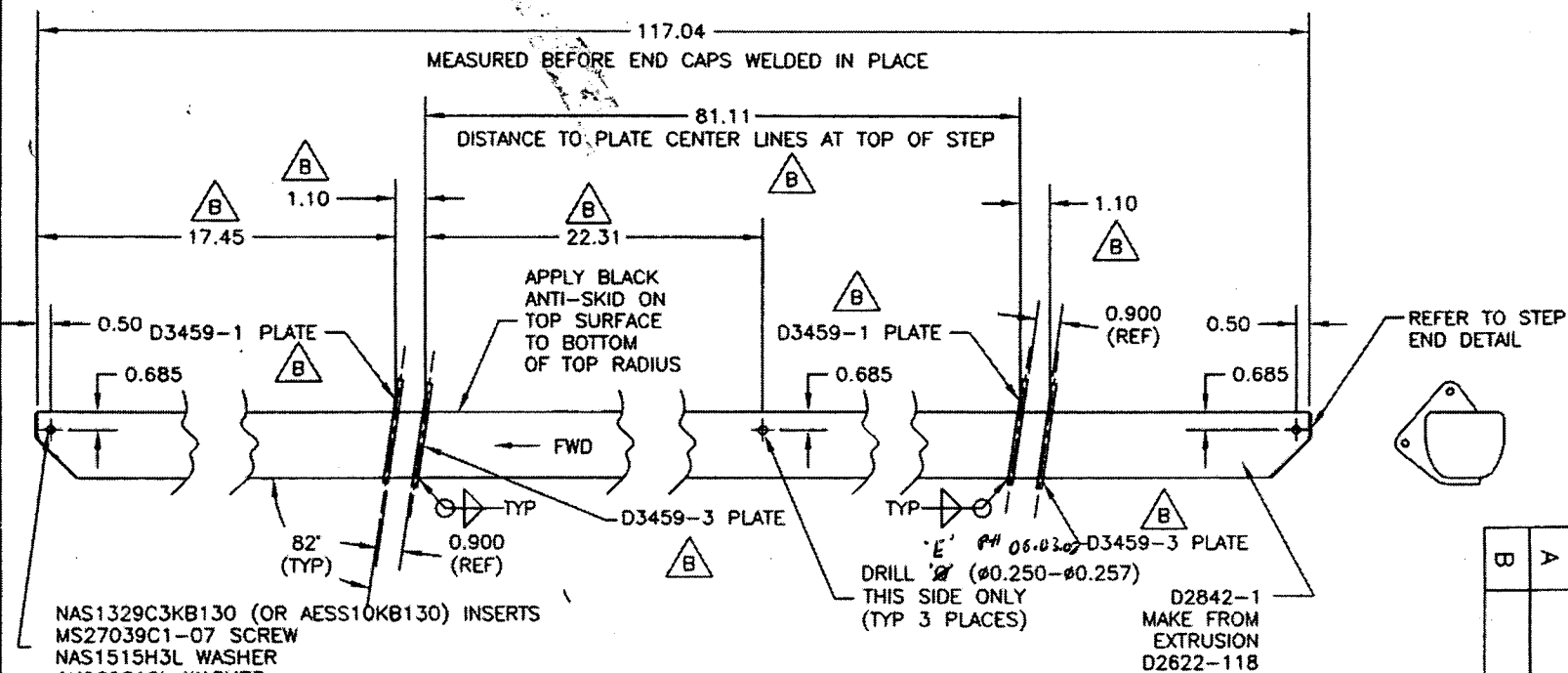
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN	KE	DRAWN BY	PH	DART AEROSPACE USA, INC.
CHECKED		APPROVED		PORT HADLOCK, WA
DATE	05.09.23	DRAWING NO.	D2842	REV. B
		TITLE	206L/407 FLOAT STEP ASSEMBLY	SHEET 1 OF 1
			NEW ISSUE	SCALE
			RE-DESIGN, ADD D3459-1/-3	MTS

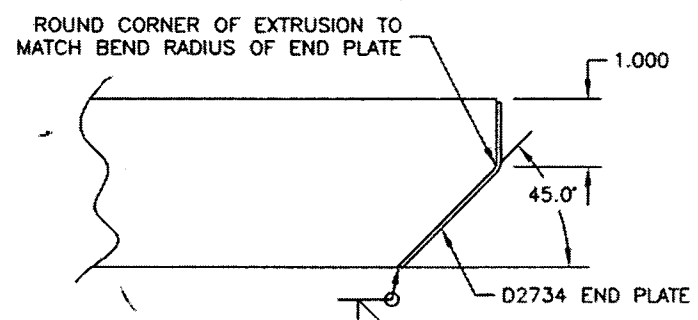


NAS1329C3KB130 (OR AESS10KB130) INSERTS
MS27039C1-07 SCREW
NAS1515H3L WASHER
AN960C10L WASHER
(TYP 3 PLACES)

D2842-041 LH STEP ASSEMBLY (SHOWN)
D2842-042 RH STEP ASSEMBLY (OPPOSITE)

D2842-041/-042 FLOAT STEP ASSEMBLY PARTS LIST

QTY	QTY	PART NUMBER	DESCRIPTION
-041	-042		
X		D2842-041	LH STEP ASSEMBLY
	X	D2842-042	RH STEP ASSEMBLY
1	1	D2622-118	EXTRUSION
2	2	D2734	END PLATE
2	2	D3459-1	PLATE
2	2	D3459-3	PLATE
3	3	NAS1329C3KB130 (OR AESS10KB130)	INSERT
3	3	MS27039C1-07	SCREW
3	3	NAS1515H3L	WASHER
3	3	AN960C10L	WASHER



TYPICAL STEP END DETAIL
NOT TO SCALE

REFERENCE ONLY

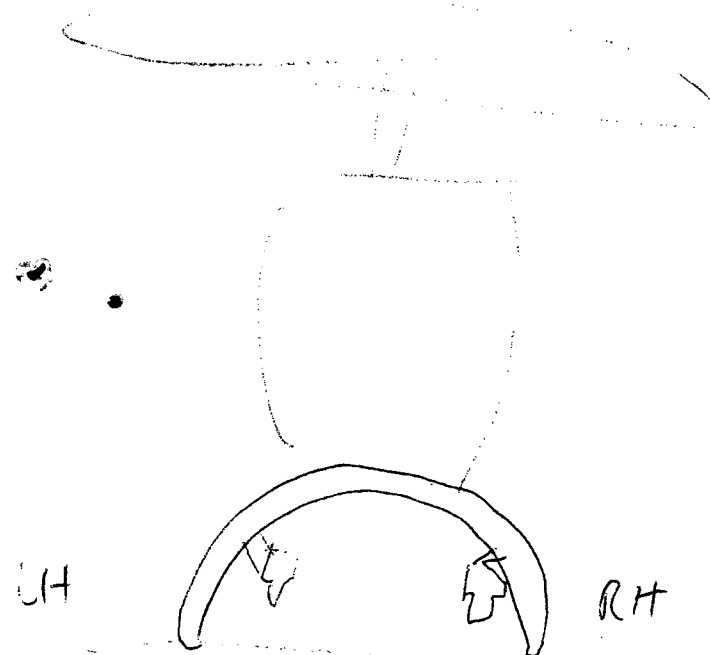
D2842-041/-042 FLOAT STEP ASSEMBLY

- 1) MAKE FROM EXTRUSION D2622
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
05.11.14

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Jason Murdoch

From: David Shepherd [davids@dartaero.com]
Sent: February 22, 2006 11:05 AM
To: Jason Murdoch
Subject: Re: new 206 step welding

The steps that bent during welding are acceptable. With respect to the #30 holes that were drilled on the wrong side of the step, fill them with weld per QSI 004 and grind flush.

David

----- Original Message -----

From: "Jason Murdoch" <jmurdoch@dartaero.com>
To: "'David Shepherd'" <davids@dartaero.com>
Sent: Wednesday, February 22, 2006 8:35 AM
Subject: RE: new 206 step welding

> Hi. Are these float steps acceptable from what you saw as is? Next time we
> will weld them with not so much heat in one location. One lug plate at a
> time. Also is it ok to fill the holes that were drilled on the opposite
side
> and grind flush? The holes are #30 luckily so they are tiny to fill in.

>
> jmurdoch@dartaero.com
> Q.C.Inspector
> -----Original Message-----
> From: David Shepherd [mailto:davids@dartaero.com]
> Sent: February 15, 2006 3:17 AM
> To: Peter Hum
> Cc: Jason Murdoch (E-mail); Bill Beckett
> Subject: Re: new 206 step welding

>
> Peter,
>
> Your 206 step design is very similar to the 119 design and we don't have
> this problem on 119 that I know of.
> I would compare the 206 step welding fixture to the 119 welding fixture.
Is
> it possible that the 206 jig isn't restricting the step
> from moving on you? Does the welder have to move around from front to
back?

>
> David

>
> ----- Original Message -----
> From: "Peter Hum" <phum@dartaero.com>
> To: "David Shepherd (E-mail)" <davids@dartaero.com>
> Cc: "Jason Murdoch (E-mail)" <jmurdoch@dartaero.com>
> Sent: Tuesday, February 14, 2006 6:06 AM
> Subject: new 206 step welding

>
>
> > Hi David,
> >
> > In welding the new 206 step lugs, there has been some bending of the
step
> > due the heat of the weld. Between the lugs the step is straight. Between
> the
> > lugs and the ends (short distance), the step bends as shown in the
picture.
> >
> > What should we do?
> >

> > 1) Is it allowable to reheat the step in order to bend the step into a
> > straight position?
> > 2) Leave as is?
> > 3) Scrap and rethink weld technique?
> >
> > Thanks
> > Peter
> >
> >
>
>